इंटरनेट मानक

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"जानने का अधिकार, जीने का अधिकार"
Mazdoor Kisan Shakti Sangathan
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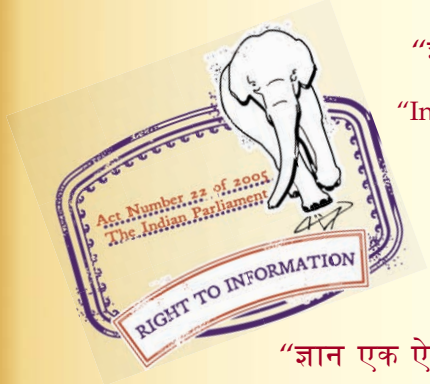
"पुराने को छोड नये के तरफ"
Jawaharlal Nehru
"Step Out From the Old to the New"

IS 11794-2-4 (1986): Laminations for Transformers and Inductors for Use in Telecommunication and Electronic Equipment, Part 2: Preferred Ranges of Laminations, Section 4: Lamination Type YEx-3 [LITD 5: Semiconductor and Other Electronic Components and Devices]

"ज्ञान से एक नये भारत का निर्माण"
Satyanarayan Gangaram Pitroda
"Invent a New India Using Knowledge"



"ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है"
Bhartṛhari—Nītiśatakam
"Knowledge is such a treasure which cannot be stolen"

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UDC 621·3·042·2 : 621·314·21 : 621·318·43 : 621·38/·39·038

(Reaffirmed 2004)

Indian Standard

SPECIFICATION FOR LAMINATIONS FOR TRANSFORMERS AND INDUCTORS FOR USE IN TELECOMMUNICATION AND ELECTRONIC EQUIPMENT

PART 2 PREFERRED RANGES OF LAMINATIONS

Section 4 Lamination Type YEx-3

Soft Magnetic Materials Sectional Committee, LTDC 13 [Ref : Doc : LTDC 13 (806)

0. General — This standard shall be read in conjunction with IS : 11794 (Part 1)-1986 'Laminations for transformers and inductors for use in telecommunication and electronic equipment: Part 1 General requirements and tests.

1. Scope — This standard (Part 2/Sec 4) covers dimensions and tolerances together with the effective parameters of laminations of type YEx-3.

2. Description — These laminations have large window area and are used for power transformers and high voltage transformers. The dimensions of side *a* of this range varies from 40 to 160 mm and the ratio of lamination area (A_F) to window area (A_W) is 1·80 where:

$$A_F = a\,b - A_W$$

$$A_W = c\,(e - d)$$

3. Dimensions and Effective Parameters — Dimensions and effective parameters are given in Table 1.

EXPLANATORY NOTE

The effective parameters are based on a stacking factor α 0·95 and a stacking height equal to *d*. For the calculation in the case of different stacking factors, *see* **9.2.2** of IS : 11794 (Part 1)-1986.

In the table of dimensions and parameters, the direction of rolling in the case of grain-oriented material has been indicated by a double-arrow.

This standard is being issued in two parts: Part 1 covering general requirements and tests, Part 2 covering preferred ranges of laminations. Part 2 has the following sections:

Section 1 Lamination type YEI-1

Section 2 Lamination type YEx-2

Section 3 Lamination type YED-2

Section 4 Lamination type YEx-3

Section 5 Lamination type YEx-4

Section 6 Lamination type YUI-1

Section 7 Lamination type YM-1

This standard is based, without any technical change, on IEC Pub 740-1982, 'Lamination for transformers and inductors for use in telecommunication and electronic equipment' issued by the International Electrotechnical Commission (IEC).

Adopted 30 September 1986 | | Gr 1

BUREAU OF INDIAN STANDARDS
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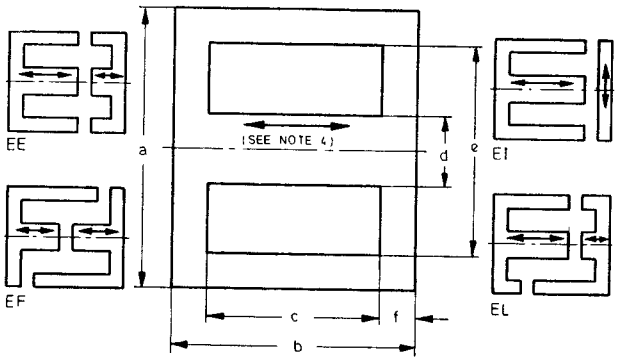
TABLE 1 DIMENSIONS AND PARAMETERS OF TYPE YEx-3

(*Clause* 3)

All dimensions in millimetres.



Designation (*See* Note 1)	Reference Letter and Tolerance Code [*See* Table 4 of IS : 11794 (Part 1)-1986]						Effective Parameters			
	a	*b*	*c*	*d*	*e*		Core Area A_{Fe}	Magnetic Path Length l_{Fe}	Core Volume V_{Fe}	Core Constant C_1
	±IT12	±IT12	+IT12 0	0 −IT12	+IT12 0	—				
		(*See* Note 2)					(mm²)	(mm)	(cm^3)	(cm^{-1})
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
YEx 3-10	40	35	25	10	30	5	95	90	8·55	9·47
YEx 3-12	48	42	30	12	36	6	136·8	108	14·8	7·89
YEx 3-16	64	56	40	16	48	8	243·2	144	35·0	5·92
YEx 3-20	80	70	50	20	60	10	380	180	68·4	4·74
YEx 3-25	100	87·5	62·5	25	75	12·5	594	225	134	3·79
YEx 3-32	126	112	80	32	96	16	973	288	280	2·96
YEx 3-40	160	140	100	40	120	20	1 520	360	547	2·37
Larger (*See* Note 3)	4 *d*	3·5 *d*	2·5 *d*	1 *d*	2 *d*	0·5 *d*	$l_{Fe} = b + c + \frac{a+e-d}{2} = 9\ d$			

Note 1 — YEx designate YEE, YEF, YEI or YEL.

Note 2 —The tolerance shown in the table for the dimensions *b* and *c* is that applicable to the two parts with pole faces in contact. The corresponding tolerance on one part of the lamination should be: ± IT1 1 for part of dimension *b* and $+\ {}^{IT11}_{0}$ for part of dimension *c*.

Note 3 — When larger sizes are required it is recommended that the ratios indicated in the last line of the table a e maintained [*See* **5.4** of IS : 11794 (Part 1)-1986].

Note 4 — Double arrow indicates direction of rolling.

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